CLAIM AMENDMENTS, CLAIM CANCELLATIONS, AND STATUS OF ALL CLAIMS

Please amend claims 1, 11 and 12 as indicated below. Please cancel claims 4-7, 13, 14, 16 and 47-53. Upon entry of this amendment, the status of all claims in this application would be as follows:

1. (**currently amended**) A method of detecting the presence of *Pneumocystis carinii* in a human biological specimen, comprising:

amplifying a highly conserved region within a human-*P. carinii* nucleic acid sequence, if such sequence is present in the specimen, using two or more oligonucleotide primers that hybridize to the highly conserved region; and

determining whether an amplified sequence is present,

wherein the highly conserved region ~~has at least 79% sequence identity with~~ comprises a sequence selected from the group consisting of residues 2794-3042 of *HMSGp1* (SEQ ID NO: 1), 2758-3006 of *HMSGp3* (SEQ ID NO: 3), 2845-3090 of *HMSG11* (SEQ ID NO: 5), 2839-3084 of *HMSG14* (SEQ ID NO: 7), 2836-3081 of *HMSG32* (SEQ ID NO: 9), 2809-3054 of *HMSG33* (SEQ ID NO: 11), or 1-249 of *HMSGp2* (SEQ ID NO: 15)~~; or at least 84% sequence identity with~~and residues 2821-3072 of *HMSG35* (SEQ ID NO: 13);

and wherein at least one oligonucleotide primer ~~hybridizes to residues 2794-2886 of *HMSGp1* (SEQ ID NO: 1), 2758-2850 of *HMSGp3* (SEQ ID NO: 3), 2845-2937 of *HMSG11* (SEQ ID NO: 5), 2839-2931 of *HMSG14* (SEQ ID NO: 7), 2836-2928 of *HMSG32* (SEQ ID NO: 9), 2809-2901 of *HMSG33* (SEQ ID NO: 11), 2821-2913 of *HMSG35* (SEQ ID NO: 13), or 1-93 of *HMSGp2* (SEQ ID NO: 15)~~consists of SEQ ID NO: 17 or 18;

and wherein the presence of the amplified sequence detects the presence of *Pneumocystis carinii* in the human biological specimen.

2. (**original**) The method according to claim 1, wherein amplification of the human-*P. carinii* nucleic acid sequence is by polymerase chain reaction.

3. (**previously amended**) The method of claim 1, wherein the oligonucleotide primers hybridize under low stringency conditions comprising 50°C in 6x SSC, 5x Denhardt's solution, 0.5% SDS and 100 μg sheared salmon testes DNA.

4-7 (**cancelled**).

8. (**previously amended**) The method of claim 1, wherein the oligonucleotide primers hybridize under stringent conditions comprising 65°C in 6x SSC, 5x Denhardt's solution, 0.5% SDS and 100 μg sheared salmon testes DNA.

9. (**previously amended**) The method of claim 1, wherein the oligonucleotide primers consist of one upstream primer and one downstream primer.

10. (**previously amended**) The method of claim 9, wherein:
the upstream primer is SEQ ID NO: 17, or SEQ ID NO: 18; and
the downstream primer is SEQ ID NO: 20 or SEQ ID NO: 24.

11. (**currently amended**) The method of claim 1, wherein one of the oligonucleotide primers ~~comprises~~ is SEQ ID NO: 17.

12. (**currently amended**) The method of claim 1, wherein one of the oligonucleotide primers ~~comprises~~ is SEQ ID NO: 18.

13-16 (**cancelled**).

17. (**previously amended**) The method of claim 1, wherein the specimen is from the oropharyngeal tract.

18. (**previously amended**) The method of claim 1, wherein the specimen is from blood.

19. (**original**) The method of claim 1, wherein the step of determining whether an amplified sequence is present comprises one or more of:

(a) electrophoresis and staining of the amplified sequence; or

(b) hybridization to a labeled probe of the amplified sequence.

20. (**original**) The method of claim 19, wherein the amplified sequence is detected by hybridization to a labeled probe.

21. (**previously amended**) The method of claim 20, wherein the labeled probe comprises a detectable non-isotopic label chosen from the group consisting of:

a fluorescent molecule;

a chemiluminescent molecule;

an enzyme;

a co-factor;

an enzyme substrate; and

a hapten.

22. (**previously amended**) The method of claim 20, wherein the labeled probe comprises SEQ ID NO: 19.

23. (**previously amended**) A method of detecting the presence of *Pneumocystis carinii* in a human biological specimen, comprising:

exposing the specimen to a probe that hybridizes under stringent conditions to a human-*P. carinii* nucleic acid sequence, if the sequence is present in the specimen, to form a hybridization complex; and

determining whether the hybridization complex is present,

wherein the human-*P. carinii* nucleic acid sequence is *HMSGp1* (SEQ ID NO: 1), *HMSGp3* (SEQ ID NO: 3), *HMSG11* (SEQ ID NO: 5), *HMSG14* (SEQ ID NO: 7), *HMSG32* (SEQ ID NO: 9), *HMSG33* (SEQ ID NO: 11), *HMSG35* (SEQ ID NO: 13), or *HMSGp2* (SEQ ID NO: 15); and

wherein the stringent conditions of hybridization comprise 65°C in 6x SSC, 5x Denhardt's solution, 0.5% SDS and 100 μg sheared salmon testes DNA.

24. **(previously amended)** The method of claim 23, wherein the probe comprises SEQ ID NO: 19.

25-45 (**cancelled**).

~~25~~46. (**currently renumbered**) The method of claim 23, wherein the probe is a labeled probe.

47-53 (**cancelled**).